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| Office Action Summary | Application No. 10/619,296 | Applicant(s) LEE, WING | |
| | Examiner JOHN M. WINTER | Art Unit 3621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7,11-34 and 36-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,11-34 and 36-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgements

The Applicants amendment filed on March 31, 2008 is hereby acknowledged, Claims 1-4, 7, 11-34 and 36-42 remain pending .

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 31, 2008 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7, 11-34 and 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suarez (US Patent 5,790,789) in view of Hejlsberg et al (US Patent 7,165,239), and further in view of Bownman-Amuah (US Patent 6,742,015).

As per claim 1

Suarez ('789) discloses a system for making computing applications throughout an enterprise aware of business events, comprising:

an enterprise integration layer that integrates a plurality of front-office systems with a plurality of back-office systems to enable the front-office systems to interact with the back-office systems and the enterprise integration layer automatically publishes business events in accordance with the interactions between the front-office systems and back-office systems, (Figure 11 [Examiner notes that the claimed feature of “the enterprise integration layer enables interactions between the front-office systems and the back-office systems” is directed towards intended usage of the claimed system. In the pending claim, the examiner submits that particular language does not serve as a limitation on the claim. In other **words language that is not functionally interrelated with useful acts, structure, or properties of the claimed invention will not serve as a limitation**. See *in re Gulak*, 217 USPQ 401 (CAFC 1983), *ex parte Carver*, 227 USPQ 465 (BdPatApp& Int 1985) and *in re Lowry*, 32 USPQ2d 1031 (CAFC 1994) where language provided certain limitations because of specific relationships required by the claims])

the enterprise integration layer comprising:

an enterprise object model which defines objects that model the data and services provided by the back-office systems; a set of client access interfaces coupled to the front-office applications wherein each of the client access interfaces correspond with a different technology and each of the client access interfaces provides a standardized interface through which the front-office systems allow a plurality of different technologies to access the objects of the enterprise object model; (Column 9, lines 14-39)

a business object server coupled to the client access interfaces. wherein the business object server enables the interactions between the front-office systems and back-office systems by implementing data functions and service methods associated with the accessed objects; (Column 11, lines 15-43; column 34 lines 52-67)

a messaging system coupled to the enterprise integration layer that automatically subscribes to the business events published by the enterprise integration layer and for each business event, the messaging system automatically generates a message to make the computing applications that are interested in the business event aware of the business event.(Column 12 lines 37-64)

Suarez ('789) does not explicitly disclose a set of adapters coupled to the business object server wherein the adapters transform the accessed objects into requests compatible with a format of the back-office systems corresponding with the implementation of the data functions and the service methods associated with the accessed. Hejlsberg et al. ('239) discloses a set of adapters coupled to the business object server wherein the adapters transform the accessed objects into requests compatible with a format of the back-office systems corresponding with the implementation of the data functions and the service methods associated with the accessed (Column 5, line 60 – column 6 line 44) It would be obvious to one having ordinary skill in the art at the time of the invention to combine Suarez ('789)'s method with Hejlsberg et al. ('239)'s teaching in order allow distributed processes to be deployed over non-homogenous networks; furthermore the combination of these elements does not alter their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Suarez ('789) does not explicitly disclose wherein the back-office systems provide data and services and the front-office systems use the enterprise integration layer to access the data and services provided by the back office-systems

. Bownman-Amuah ('015) discloses wherein the back-office systems provide data and services and the front-office systems use the enterprise integration layer to access the data and services provided by the back office-systems

(Column 76, line 21 discussion of “object messaging, including CORBA and Dcom implementations) It would be obvious to one having ordinary skill in the art at the time of the invention to combine Suarez ('789)'s method with Bownman-Amuah ('015)'s teaching in order to create an abstraction layer that encapsulates differences between objects and allows interaction via common interface; furthermore the combination of these elements does not alter their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention..

The claimed feature of “automatically subscribes” merely automates procedures that have been well established in the area of business software, it is the examiners position that that automation of a process does not establish novelty (*In re Venner*, 120 USPQ 192,194)

Claims 11, 21, 31 and 42 are in parallel with claim 1 and are rejected for at least the same reasons.

As per claim 2,

Suarez ('789) discloses the system of claim 1

wherein the enterprise integration layer further comprising a rules engine that defines and stores rules regarding (Figure 6)

Suarez ('789) does not explicitly disclose transforming the objects of the enterprise object model to the format of the back-office systems, rules regarding mapping each of the back-office systems to an appropriate adaptor in the set of adaptors, and rules regarding when to publish the business events in accordance with the interactions. Hejlsberg et al. ('239) discloses transforming the objects of the enterprise object model to the format of the back-office systems, rules regarding mapping each of the back-office systems to an appropriate adaptor in the set of adaptors, and rules regarding when to publish the business events in accordance with the interactions (Column 5, line 60 – column 6 line 44), It would be obvious to one having ordinary skill in the art at the time of the invention to combine Suarez ('789)'s method with Hejlsberg et al. ('239)'s teaching in order allow distributed processes to be deployed over non-homogenous networks.

Claim 23 is in parallel with claim 2 and are rejected for at least the same reasons.

As per claim 3,

Suarez ('789) discloses the system of claim 1 further comprising a business event repository within the enterprise integration layer to contain definitions of business events that are of interest to business applications (Figure 6).

Claim 13 is in parallel with claim 3 and are rejected for at least the same reasons.

As per claim 4,

Suarez ('789) discloses the system of claim 1 further comprising
a back-office metadata repository within the enterprise integration layer to hold metadata
supplied by the adapters.(Column 13, lines 39-67)

Suarez ('789) does not explicitly disclose to enable transforming of the objects of the
enterprise object model to the format of the back-office systems.

Hejlsberg et al. ('239) discloses to enable transforming of the objects of the enterprise object
model to the format of the back-office systems. (Column 5, line 60 – column 6 line 44), It would
be obvious to one having ordinary skill in the art at the time of the invention to combine Suarez
('789)'s method with Hejlsberg et al. ('239)'s teaching in order allow distributed processes to be
deployed over non-homogenous networks.

Claims 12, 14, 22 and 24 are in parallel with claim 4 and are rejected for at least the same
reasons.

As per claim 7,

Suarez ('789) discloses the system of claim 1 further comprising
wherein the set of client access interfaces comprise: an object interface; a relational
interface; and a web services interface. (Figure 6)

Claims 17 and 27 are in parallel with claim 7 and are rejected for at least the same
reasons.

As per claim 15,

Suarez ('789) discloses the system of claim 11 further comprising
a transaction processor within the enterprise integration layer to provide distributed
transactional quality of service. (Column 19, lines 9-46)

Claim 25 is in parallel with claim 15 and are rejected for at least the same reasons.

As per claim 16,
Suarez ('789) discloses the system of claim 11 further comprising
a local data store within the enterprise integration layer to make data persistent within the
enterprise integration layer.(Column 13, lines 39-67)

Claim 26 is in parallel with claim 16 and are rejected for at least the same reasons.

As per claim 18,
Suarez ('789) discloses the system of claim 11
wherein the enterprise integration layer uses previously existing infrastructure services
within the enterprise. (Column 19, lines 9-46)

Claim 28 is in parallel with claim 18 and is rejected for at least the same reasons.

As per claim 19,
Suarez ('789) discloses the system of claim 18
wherein the previously existing infrastructure services are selected from a group of
services comprising: a naming and directory service; a security service; and an application

management and monitoring system. (Column 19, lines 9-46)

Claim 29 is in parallel with claim 19 and is rejected for at least the same reasons.

As per claim 20,

Suarez ('789) discloses the system of claim 19

wherein the previously existing infrastructure services include each of a group of services comprising: a naming and directory service; a security service; and an application management and monitoring system. (Column 19, lines 9-46)

Claim 30 are in parallel with claim 20 and are rejected for at least the same reasons

As per claim 32,

Suarez ('789) discloses the method of claim 31

wherein the business event and the data related to the business event are combined in a single packet.(Figure 7A)

As per claim 33,

Suarez ('789) discloses the method of claim 31

wherein the business event and the data related to the business event are published to a message bus. (Column 11, lines 15-42)

Claim 36 are in parallel with claim 20 and are rejected for at least the same reasons

As per claim 34,

Suarez ('789) discloses the method of claim 31 wherein the business event and the data related to the business event are published to a message queue.(Column 12, lines 54-64)

As per claim 35,
Suarez ('789) discloses the method of claim 31 wherein the business event and the data related to the business event are made available to the enterprise through a messaging system.(Figure 6)

As per claim 37,
Suarez ('789) discloses the system of claim 1 wherein
Official Notice is taken that "object assembly includes creating a composite object by aggregating data from a plurality of back-office systems, object disassembly includes breaking a composite object into multiple objects for storage in at least one of the back-office systems" is common and well known in prior art in reference to computer protocols. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a composite data structure in order to more accurately model the data being represented.

As per claim 38,
Suarez ('789) discloses the system of claim 1 wherein a business event may occur upon the implementation of the data functions and the service methods including creating data, reading

data, updating data, deleting data, and invoking one of the service methods.(column 12, lines 47-64, Figure 6)

As per claim 39,

Suarez ('789) discloses the system of claim 3

wherein the business event repository further includes an identification of all of the publishers for each of the business events.(Column 11, lines 15-42)

As per claim 40,

Suarez ('789) discloses the system of claim 1

Suarez ('789) does not explicitly disclose wherein the messaging system comprises a transformation layer including one or more adaptors that map data corresponding to business events published by the enterprise integration layer between a format of the enterprise object model and a format of the computing applications. Hejlsberg et al. ('239) discloses wherein the messaging system comprises a transformation layer including one or more adaptors that map data corresponding to business events published by the enterprise integration layer between a format of the enterprise object model and a format of the computing applications. (Column 5, line 60 – column 6 line 44), It would be obvious to one having ordinary skill in the art at the time of the invention to combine Suarez ('789)'s method with Hejlsberg et al. ('239)'s teaching in order allow distributed processes to be deployed over non-homogenous networks.

As per claim 41,

Suarez ('789) discloses the system of claim 40

Suarez ('789) does not explicitly disclose wherein the one or more adaptors include a source application adaptor that transforms data related to a business event from a format of a source of the business event to the format of the enterprise object model and a target application adaptor that transforms data from the format of the enterprise object model to a format of a target subscribed to the business event. Hejlsberg et al. ('239) discloses wherein the one or more adaptors include a source application adaptor that transforms data related to a business event from a format of a source of the business event to the format of the enterprise object model and a target application adaptor that transforms data from the format of the enterprise object model to a format of a target subscribed to the business event. (Column 5, line 60 – column 6 line 44), It would be obvious to one having ordinary skill in the art at the time of the invention to combine Suarez ('789)'s method with Hejlsberg et al. ('239)'s teaching in order allow distributed processes to be deployed over non-homogenous networks.

Response to Arguments

The Applicants arguments filed on March 31, 2008 have been fully considered.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest

to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. WINTER whose telephone number is (571)272-6713. The examiner can normally be reached on M-F 8:30-6, 1st Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Patent Examiner -- 3621

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